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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,705	07/15/2003	Masahiro Kato	8048-1029	4913

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EXAMINER

DANIELSEN, NATHAN ANDREW

ART UNIT	PAPER NUMBER
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2627

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/14/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/618,705	Applicant(s) KATO ET AL.	
	Examiner Nathan Danielsen	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 3 and 8-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 4-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/15/05 & 08/03/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-13 are pending. Claims 3 and 8-13 have been withdrawn in response to applicant's election filed 08 January 2007.

Election/Restrictions

2. Applicant's election of the species of figures 1 and 3 (claims 1, 2, and 4-7) in the reply filed on 08 January 2007 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

3. Claims 3 and 8-13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 08 January 2007.

Priority

4. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

5. The drawings are objected to because figure 3 contains a spelling error. In element 22, "dvrivier" should be --driver--. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing

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sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

6. Claim 7 is objected to because "which is predetermined digital data corresponds" should be changed to --which is predetermined digital data corresponding--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claim 4 recites the limitation "each of a recording power which is a power of a recording light emitted from the light source in recording". There is insufficient antecedent basis for this limitation in the claim because the word "each" indicates a plurality of recording powers, which is not claimed in the claims from which claim 4 depends.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1 and 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Hoshino et al (US Patent 5,438,582; hereinafter Hoshino).

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Regarding claims 1 and 7, Hoshino discloses an information recording apparatus (and associated information recording method) comprising:

- a light source which emits a recording light for information recording (col. 9, lines 23-36);
- a recording waveform data generating unit which generates recording waveform data which is predetermined digital data corresponding to an input recording signal (col. 9, lines 23-36 and figures 6, 11, and 13);
- a D/A converting unit which D/A-converts the recording waveform data to generate a driving pulse signal (inherent in the magneto-optical disc drive of Hoshino and suggested by col. 10, lines 61-68); and
- a driving unit which drives the light source to emit the recording light based on the driving pulse signal (figures 7 and 8 and col. 10, lines 61-68), wherein the recording waveform data is determined in accordance with characteristics of the light source, the driving unit and a combination thereof (figures 6, 11, and 13).

Regarding claim 5, Hoshino discloses where the recording waveform data includes a level for suppressing an overshoot and/or an undershoot at a position corresponding to a position at which a waveform of the recording light emitted from the light source forms the overshoot and/or the undershoot (figures 6, 11, and 13).

Regarding claim 6, Hoshino discloses where the recording waveform data has a level for canceling a level tilt in a case that a waveform of a recording light emitted from the light source has the level tilt (figure 13).

12. Claims 1, 2, and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Seo (European Patent Application Publication 1 061 509).

Regarding claim 1, Seo discloses an information recording apparatus comprising:

- a light source which emits a recording light for information recording (figure 5);

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a recording waveform data generating unit which generates recording waveform data which is predetermined digital data corresponding to an input recording signal (output of mux 512);

a D/A converting unit which D/A-converts the recording waveform data to generate a driving pulse signal (DAC 210); and

a driving unit which drives the light source to emit the recording light based on the driving pulse signal (LD driver 140), wherein the recording waveform data is determined in accordance with characteristics of the light source, the driving unit and a combination thereof (§§ 81, 82, and 87).

Regarding claim 2, Seo discloses where the recording waveform data generating unit comprises:

a unit which generates a recording strategy signal based on the recording signal and strategy information (§ 123);

a storing unit which stores predetermined waveform data determined in accordance with the characteristics of the light source, the driving unit and the combination thereof, for pulse waveforms of plural pulse widths (power table storing units 504 and 508 and § 123); and

a generating unit which obtains the waveform data corresponding to the pulse waveform forming the strategy signal from the storing unit and generates the recording waveform data (§§ 119-123).

Regarding claim 4, Seo discloses where the storing unit stores the waveform data for each of a recording power which is a power of a recording light emitted from the light source in recording, and the generating unit refers to the storing unit according to a recording power to be utilized and generates the recording waveform data (§§ 102-106).

Closing Remarks/Comments

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Danielsen whose telephone number is (571) 272-4248. The examiner can normally be reached on Monday-Friday, 9:00 AM - 5:00 PM Eastern Time.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nathan Daniels
03/06/2007



WAYNE YOUNG
SUPERVISORY PATENT EXAMINER